animal, i.e. the infecting animal, even if symptom free at the time, must die of rabies, usually within 10 days. (The only known exception to this is the vampire bat which is reported to be an immune carrier. No other bats have been found immune so far.)

<sup>6</sup>2. The rabies virus (infection) cannot penetrate through unbroken skin. The infecting saliva must, therefore, come in contact with a break in the skin (as in biting) or with the mucous membranes (conjunctiva, mouth, etc.).

'The reference mentioned by you is an abstract of a recent WHO report discussing about 21 cases, and mentioning others, where rabies is said to have been caused by contact with non-rabid dogs. Since all the necessary data are not available one does not know what to make of these reports. Such transmission can only be proved by showing the presence of infective virus in the animal's saliva, which has never so far been done. Contacts with dogs are very common, (the only incidents recalled later being ones of actual biting etc.) and it is very likely that the actual infecting contact, if a minor scratch, or a lick over a cut or abrasion on the skin, may have passed unnoticed. I would not rule out the WHO reports completely, but would be very chary of accepting any such incident without the positive evidence of virus in the saliva. This is very difficult to provide, since suspicion is not aroused until long after the incident, when symptoms start appearing.'

As we would not like to be responsible for a holocaust of bats in India we are glad to publish Dr. Nanavati's observations. Incidentally, the genus *Tadarida* to which *T. brasiliensis mexicana* Saussure found in the Frio Cave belongs, occurs in India, but not this particular species; nor have we any species of vampire bats (*Desmodus*).

BOMBAY NATURAL HISTORY SOCIETY, 91, WALKESHWAR ROAD, BOMBAY 6-WB., February 16, 1963.

**EDITORS** 

## 6. SOME RECORDS OF PETRELS HANDLED IN THE NORTHERN INDIAN OCEAN

Although H. G. Alexander (1929, 1931) and W. W. A. Phillips (1947, 1950, 1954, 1955) and numerous subsequent authors have reported that many petrels can sometimes be seen in the northern

Indian Ocean, few of these birds have ever been examined in the hand. The most important evidence for the identity of the birds seen at sea therefore rests on reviews of birds collected on ships by Junge (1941), of the large dark petrels by Jouanin (1955, 1957), and of the 'Persian' Shearwater Puffinus Iherminieri persicus by Phillips & Sims (1958). Although it is well known that Wilson's Storm Petrel Oceanites oceanicus winters in this area (Roberts 1940), and Junge reported the collection of a number of moulting Whitefaced Storm Petrels of the Australian race Pelagodroma marina dulciae all round the northern border of the Indian Ocean during the southern winter, the only evidence for the identity of another species in the area has previously been a specimen of the Blackbellied Storm Petrel Fregetta tropica labelled 'Bay of Bengal' in the Tweeddale collection in the British Museum (Gibson-Hill 1948).

During the course of a cruise through the Indian Ocean in an aircraft carrier in 1960 the first author saw numerous petrels come to the deck-lights at night, and was able to handle some, including a Blackbellied Storm Petrel. Photographs of two of the larger petrels handled have already been published in the journal of the Royal Naval Bird Watching Society, Sea Swallow, for 1960, together with an account of the petrels of the area by the second author, and many other observations of the seabirds of the area will be found there; since the Blackbellied Storm Petrel is the first which has actually been handled in recent times in the Indian Ocean north of the equator, it seems desirable to call attention to this record in particular here.

### THE BLACKBELLIED STORM PETREL

A bird came to the deck-lights at night at 08° 03′ N., 72° 50′ E., 14 miles SE. of Minicoy, on 9 September 1960. The head, neck, upperparts, wings, tail, bill, and legs were more or less black, the rump, belly, flanks, and under tail coverts were white, the underwing was grey, and there was a dark line down the centre of the belly. The overall length was 180 mm., the overall wingspan 410 mm., the wing 168 mm., the tail 70 mm. and almost square, the exposed culmen was 15 mm., the tarsus 40 mm., and the middle toe 28 mm. The account agrees exactly with the more southerly populations of Fregetta tropica which breed to the south on Kerguelen among other subantarctic islands. Numerous sight records of storm petrels of the genus Fregetta by Phillips (1947) and a number of subsequent observers suggest that this species is a common visitor to the central Arabian

Sea during the southern winter, arriving about May and leaving about September. The very similar Whitebellied Storm Petrel Fregetta grallaria may occur as well, but we are not aware that one has been handled yet.

### OTHER SPECIES

A Whitefaced Storm Petrel *Pelagodroma marina* came on board and was photographed in much the same area as the last species earlier in the year, at 08° 05′ N., 73° 00′ E. on 28 May.

Examples of *Bulweria* (*bulwerii*) fallax, recently described by Jouanin (1955), came on board at 16° 40′ N., 55° 15′ E. and 18° 50′ N., 57° 50′ E. on 14 February, and 11° 24′ N., 57° 05′ E. on 25 May in the central Arabian Sea off the mouth of the Gulf of Aden. They agreed in appearance with the original description, except that one was said to have a paler chin. The overall length in life was 295-300 mm., the overall wingspan 790 mm. The local water temperature was 78° F. in February, and 83° F. in May. The third bird vomited a small squid about 2 cm. long. The Indian specimen of the Mascarene Petrel *Pterodroma aterrima*<sup>1</sup> quoted by Ripley (1961) should perhaps be re-examined to see if it is this species.

Wedgetailed Shearwaters *Puffinus pacificus* came on board at 09° 25′ N., 66° 24′ E. on 27 May and at 05° 10′ N., 84° 00′ E. on 1 June. The bill was described as steel-grey with the tip black in the first case, and black in the second; the legs and feet were pink. The overall length in life was 370-380 mm. (15 in.), the overall wingspan 860 mm. The water temperature was 83° F. in both cases, and the first bird also vomited squid.

THE GREEN,
RAVENSTHORPE, NORTHANTS.,
ENGLAND.
46, WILBURY ROAD,
HOVE 3, SUSSEX,
ENGLAND,
November 24, 1962.

N. BAILEY

W. R. P. BOURNE

<sup>&</sup>lt;sup>1</sup> The specimen of *Pterodroma aterrima* first reported by Sálim Ali & Huma-yun Abdulali in *J. Bombay nat. Hist. Soc.* 42: 193, and later listed by Ripley in A SYNOPSIS OF THE BIRDS OF INDIA AND PAKISTAN (p. 5) cannot now be traced.—EDS.

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# THE BLUETAILED BEE-EATER MEROPS PHILIPPINUS LINNAEUS, NESTING IN CEYLON

You will be interested to hear that I have recently established that the Bluetailed Bee-eater, Merops philippinus Linnaeus, nests in Ceylon.

I found a single pair at Kumana, in the Eastern Province, nesting in a sandy slope leading down to an estuary, during Easter 1962. I think that these birds were incubating as I saw one of the birds enter the hole and stay within for about 3 minutes only possibly feeding the mate. If young were being fed the visits would have been more frequent and regular.

Again, a fortnight later, I came upon some of these birds further north up the same coast obviously feeding young. They were catching flies over the sea and returning very regularly to the nest at intervals of about 5 minutes. Unfortunately, I could not get to where they had their nests as this was on the other side of a river over which I had no means of crossing.

PINGARAWA. NAMUNUKULA, CEYLON. May 19, 1962.

C. E. NORRIS